

Anderson-Nichols

6 Loudon Road
Concord, New Hampshire 03301
(603) 228-1121

June 29, 1979

Max B. Scheider
Colonel, Corps of Engineers
Deputy Division Engineer
Contracting Officer
New England Division
424 Trapelo Road
Waltham, Massachusetts 02154

SUBJECT: Inspection of 18 Lower Connecticut River, N.H. Dams
Contract No. DACW33-79-C-0009
Our Job Nos. 3220-03 and -04

Dear Colonel Scheider:

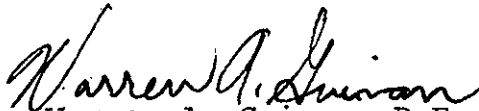
Enclosed are brief reports, photos, and updated inventory sheets on Rodgers and Mud Pond Dams (Fed. I.D. No.s NH00079 and N.H. 00092 respectively).

We advised you that both dams were low hazard in a letter dated 22 May 1979. Subsequently, we have been advised that you are preparing a modification to the subject contract that will include substitutes for these two dams.

Should you have any questions please contact me.

Very truly yours,

ANDERSON-NICHOLS & COMPANY, INC.



Warren A. Guinan, P.E.
Vice President-Manager
Water Resources Division-Concord

WAG/jpo

Enclosures

Mud Pond Dam - Line Item 04 - This dam, at about elevation 1050 feet msl, was originally a wooden frame and decking dam, built about 1899 and in 1907 an additional 2 feet in height was added to provide more storage. This occurred when the dam was converted from a water power source for a peg mill and/or fulling mill to a small hydroelectric generating plant about $\frac{1}{4}$ mile and 85 feet below the dam. The present concrete gravity dam was built in 1917. The dam is located on Stanley Brook, in the Town of Dublin, that originates from Thorndike Pond in Jeffery. Stanley Brook joins Brush Brook about $\frac{1}{2}$ mile downstream of Mud Pond Dam and Brush Brook flows into Edward McDowell Reservoir about $\frac{3}{4}$ mile below the confluence with Stanley Brook. Mr. Mitchel Wenigmann, Main Street, Dublin, N. H. 03444, is the present owner.

The dam is 238 feet long, of varied width, and has a structural height of 17.5 feet and hydraulic height of 15.7 feet. The dam is a concrete gravity dam constructed on bedrock and tied into natural abutments of earth and rock. The east side of the dam is stone masonry from the gate section back and ending at an excavated emergency spillway in the right (east) abutment. An earthfill has been placed in the emergency spillway to force all flow over the principal spillway. The remnants of the old penstock (42-inch diameter) to the hydroplant extend out from the face of the dam for about 20 feet. Rust has eaten away much of the metal. The gatehouse was locked and the gate was not visible; however, considerable leakage was noted issuing from the penstock. The dam also contains a drain gate and trash rack, neither of which could be inspected. The designed gate opening is 2.5' x 2.5' with invert about 9' below the spillway crest. The drainage area above the dam is about 15 square miles. The surface area of the reservoir is about 53 acres; the pond is about $\frac{3}{4}$ mile long; normal pool storage is about 260 acre-feet; and maximum storage is about 350 acre-feet. The concrete, broadcrested spillway (principal) is 36.5' wide and 13 feet high. A small footbridge crosses the pond about 130 feet upstream of the spillway.

The dam is in fair condition. Noticeable seepage was issuing from a joint or crack on the left (west) side near the top 1 or 2 feet of the dam. Other areas of seepage were noted on the downstream face near the toe in addition to the leakage from the penstock. Some cracks were observed in the concrete as well as some spalling of concrete. The downstream channel is steep, rocky and the banks contain trees and brush.

From the Mud Pond Dam to McDowell Reservoir, a distance of $1\frac{1}{4}$ miles, no structures of any description were noted. Only the foundation outlines of the former hydroplant remain. Therefore, the dam is considered low hazard and we recommend that it be dropped from further study.



Spillway - Mud Pond Dam



Mud Pond Dam From Bridge
Upstream



Bridge - 130' Upstream of
Spillway



Downstream Channel



Left (West) Concrete
Training Wall



Seepage from Left Training
Wall



Right (East) Masonry
Training Wall



Gatehouse and U/S Face
of Dam



Emergency Spillway (Rock
and Soil Dumped Just to
Left of Photo Toward
Reservoir)



Spillway as Seen from
Left (West) Side



Penstock Remnant



Leakage from Penstock

NEDED-E

17 June 1981

Mr. Michael Winigmann
Main Street
Dublin, NH 03444

Dear Mr. Winigmann:

Inclosed for your use is a copy of the Report on Mud Pond Dam (NH-00092). During the field inspection and the early stages of the preparation of this report, our contractor found that this dam had a "low potential hazard" for downstream damage in the event of a failure. Based on this finding, we directed our contractor to terminate his work and summarize the work accomplished to date. The report inclosed is a copy of this summary.

If you have any questions concerning this report, we suggest you contact the New Hampshire Water Resources Board first; then if there are further questions contact Mr. Gould, Project Management Branch, Engineering Division of this office at (617) 894-2400, extension 313.

Sincerely,

Incl
as stated

JOE B. FRYAR
Chief, Engineering Division

CF: Mr. Gould ✓
Eng Div Files

NEDED-E

17 June 1981

Mr. George M. McGee, Sr.
Chairman, New Hampshire Water Resources Board
State of New Hampshire
Concord, New Hampshire 03301

Dear Mr. McGee:

Inclosed for your use is a copy of the Report on Mud Pond Dam (NH-00092). During the field inspection and the early stages of the preparation of this report, our contractor found that this dam had a "low potential hazard" for downstream damage in the event of a failure. Based on this finding, we directed our contractor to terminate his work and summarize the work accomplished to date. The report inclosed is a copy of this summary.

Sincerely,

Incl
as stated

JOE B. FRYAR
Chief, Engineering Division

CF: Mr. Gould ✓
Eng Div Files